

WHAT IS CLAIMED IS:

1. A data communication system comprising:  
a controller for setting a logical connection  
relationship different from that set by other  
5 controller, between a source node and one or more  
destination nodes;  
a source node for transferring object data divided  
into one or more segments in an asynchronous  
transferring by using the logical connection  
10 relationship; and  
one or more destination nodes for receiving the  
object data transferred from said source node in the  
asynchronous transferring.
- 15 2. A system according to claim 1, wherein said  
source node effects the asynchronous transferring  
continuously.
- 20 3. A system according to claim 1 or 2, wherein  
said one or more destination nodes return response for  
the asynchronous transferring.
- 25 4. A system according to claim 1, wherein the  
logical connection relationship is discriminated by  
connection ID set by each controller.
5. A system according to claim 4, wherein the

logical connection relationship is further discriminated by inherent information of each controller.

5           6. A system according to claim 4, wherein the logical connection relationship is further discriminated by a predetermined channel number.

10           7. A system according to claim 1, wherein the logical connection relationship is released by said controller or said destination node after the object data is transferred.

15           8. A system according to claim 1, wherein said one or more destination nodes inform said source node of initial information required for initial setting of the asynchronous transferring.

20           9. A system according to claim 8, wherein said source node effects the initial setting of the asynchronous transferring on the basis of the initial information.

25           10. A system according to claim 9, wherein said source node sets at least one of a size of one segment, a size of receiving buffer and destination address for commonly designating memory spaces of said one or more

destination nodes.

5 11. A system according to claim 1, wherein said source node broadcasts the object data by using the asynchronous transferring.

10 12. A system according to claim 1, wherein said source node writes the object data in a common memory space of said one or more destination nodes by using the asynchronous transferring.

15 13. A system according to claim 1, wherein said one or more destination nodes store a common memory space of said destination nodes.

20 14. A system according to claim 1, wherein the asynchronous transferring is based upon an asynchronous transfer system of IEEE 1394-1995 Standard.

25 15. A system according to of claim 1, wherein the asynchronous transferring is based upon an asynchronous streaming transfer system of IEEE 1394-a Standard.

16. A system according to claim 1, wherein the data communication system is a network of bus type.

17. A system according to claim 1, wherein the

data communication system is a network based upon IEEE 1394-1995 Standard.

18. A system according to claim 1, wherein the  
5 data comprising one or more segments is at least one of still image data, graphic data, text data, file data and program data.

19. A data communication system comprising:  
10 a controller for setting a logical connection relationship different from that set by other controller, between a source node and one or more destination nodes;  
a source node for broadcasting object data divided  
15 into one or more segments by using the logical connection relationship; and  
one or more destination nodes for receiving the object data broadcasted from said source node.

20 *5/10/93* 20. A data communication system comprising:  
a controller for setting new logical connection relationships between a source node and one or more destination nodes;  
a source node for transferring object data divided  
25 into one or more segments in an asynchronous transferring by using one of the logical connection relationships; and

one or more destination nodes for discriminating the logical connection relationship and for receiving the object data.

5 21. A data communication system comprising:

a controller for setting new logical connection relationships between a source node and one or more destination nodes;

10 a source node for broadcasting object data divided into one or more segments by using one of the logical connection relationships; and

one or more destination nodes for discriminating the logical connection relationship and for receiving the object data.

15 22. A data communication system comprising:

20 a source node for successively transferring object data divided into one or more segments in an asynchronous transferring by using one of a plurality of logical connection relationships set between a plurality of nodes; and

one or more destination nodes for discriminating one of the plurality of logical connection relationships and for receiving the object data.

25 23. A data communication system comprising:

a source node for successively broadcasting object

data divided into one or more segments by using one of  
a plurality of logical connection relationships set  
between a plurality of nodes; and

5 one or more destination nodes for discriminating  
one of the plurality of logical connection  
relationships and for receiving the object data.

24. A data communication method comprising steps  
of:

10 setting a logical connection relationship  
different from that set by other controller, between a  
source node and one or more destination nodes;

transferring object data divided into one or more  
segments in an asynchronous transferring by using the  
15 logical connection relationship; and

receiving the object data transferred in the  
asynchronous transferring.

25. A data communication method comprising steps  
20 of:

setting a logical connection relationship  
different from that set by other controller, between a  
source node and one or more destination nodes;

25 broadcasting object data divided into one or more  
segments by using the logical connection relationship;  
and

receiving the object data broadcasted from the

source node.

Sub A4

26. A data communication method comprising steps of:

```
5      setting new logical connection relationships
      between a source node and one or more destination
      nodes;
```

transferring object data divided into one or more segments in an asynchronous transferring by using one of the logical connection relationships; and

discriminating the logical connection relationship and receiving the object data.

27. A data communication method comprising steps  
15 of:

```

    setting new logical connection relationships
between a source node and one or more destination
nodes;

```

20       broadcasting object data divided into one or more  
      segments by using one of the logical connection  
      relationships; and

discriminating the logical connection relationship  
and receiving the object data.

25            28. A data communication method comprising steps  
of:

successively transferring object data divided into

discriminating one of the plurality of logical  
5 connection relationships and receiving the object data.

successively broadcasting object data divided into  
10 one or more segments by using one of a plurality of  
logical connection relationships set between a  
plurality of nodes; and

15

30. A data communication method comprising steps

20     source node and one or more destination nodes; and  
        informing said source node and said one or more

25            31. A data communication method comprising steps  
of:

discriminating a plurality of logical connection

relationships set between one or more destination nodes; and

transferring object data divided into one or more segments in an asynchronous transferring by using one  
5 of the logical connection relationships.

32. A data communication method comprising steps of:

discriminating a plurality of logical connection  
10 relationships set between source nodes; and

receiving object data transferred from said source node in an asynchronous transferring and divided into one or more segments by using one of the logical connection relationships.

15

33. A communication apparatus comprising:

a means for setting a logical connection relationship different from that set by other controller, between a source node and one or more  
20 destination nodes; and

a means for informing said source node and said or more destination nodes of the logical connection relationship.

25

34. A communication apparatus comprising:

a means for discriminating a plurality of logical connection relationships set between one or more

a means for transferring object data divided into one or more segments in an asynchronous transferring by using one of the logical connection relationships.

35. A communication apparatus comprising:

10 a means for receiving object data transferred from  
said source node in an asynchronous transferring and  
divided into one or more segments by using one of the  
logical connection relationships.

Add AS

add 1